

CLAIMS

WHAT IS CLAIMED IS:

1 1. A primer set for identifying a killer-cell
2 immunoglobulin-like receptor (KIR) allele, comprising:
3 a first primer pair that comprises a first primer and second
4 primer capable of producing an amplicon that is less than or 1000 bases
5 in length from an intra-exon portion of a nucleic acid that encodes for an
6 extracellular portion of a KIR.

1 2. The primer set of claim 1, further comprising:
2 one or more additional primer pairs that comprise a first primer
3 and second primer capable of producing an amplicon that is less than or
4 1000 bases in length from an intra-exon portion of a nucleic acid that
5 encodes for an extracellular portion of one or more additional KIRs.

1 3.. The primer set of claim 1 wherein the primer set
2 comprises primer pairs that are capable of identifying all presently known
3 KIRs.

1 4. The primer set of claim 3 wherein a majority of the
2 primer pairs comprise primers that are capable of producing an amplicon
3 that is less than or 1000 bases in length from an intra-exon portion of a
4 nucleic acid that encodes for an extracellular portion of the KIR.

1 5. A primer set for identifying all of the presently known
2 KIR alleles comprising:
3 a plurality of primer pairs that are capable of identifying all
4 presently known KIR alleles, wherein a majority of the primer pairs are
5 capable of producing an amplicon that is less than or 1000 bases in
6 length from a nucleic acid that encodes a KIR.

1 6. The primer set of claim 5 wherein one or more of the
2 primer pairs of the majority of the primer pairs are capable of producing
3 an amplicon that is less than or 1000 bases in length from a nucleic acid
4 that encodes for an extracellular portion of a KIR.

1 7. The primer set of claim 6 wherein one or more of the
2 primer pairs of the majority of the primer pairs are capable of producing
3 an amplicon that is less than or 1000 bases in length from an intra-exon
4 portion of a nucleic acid encoding for an extracellular portion of a KIR.

1 8. The primer set of claim 5 wherein a majority of the
2 primer pairs are capable of producing an amplicon that less than or 500
3 bases in length.

1 9. The primer set of claim 8 wherein a majority of the
2 primer pairs are capable of producing an amplicon that less than or 250
3 bases in length.

1 10. The primer set of claim 5, wherein a majority of the
2 primer pairs are capable of producing an amplicon from 150 to 1000
3 bases in length.

1 11. The primer set of claim 5 wherein one or more of the
2 primer pairs of the majority of the primer pairs are capable of producing
3 an amplicon that is less than or 1000 bases in length from an intra-exon
4 portion of a nucleic acid that encodes for a portion of a KIR.

1 12. The primer set of claim 7 wherein the intra-exon or
2 extracellular portion of the KIR receptor is encoded by any one of KIR
3 exons 1-8.

1 13. The primer set of claim 5 wherein one or more primer
2 pairs are capable of producing an amplicon that is greater than 1000
3 bases in length.

1 14. The primer set of claim 5, wherein none of the primer
2 pairs are capable of producing an amplicon greater than or 2000 bases in
3 length.

1 15. A method for detecting a KIR allele comprising:
2 (a) detecting one or more amplicons produced by the
3 primer set of claim 5 with a sample having, or suspected of having a KIR
4 allele.

1 16. The method of claim 15 further comprising:
2 (b) contacting the primer set of claim 5 with a sample
3 having, or suspected of having a KIR allele, and
4 (c) producing one or more amplicons of one or more KIR
5 alleles with the primer set if a KIR allele for which a primer set is specific
6 for is present.

1 17. The method of claim 15, further comprising:
2 (b) contacting the sample having, or suspected of having,
3 a KIR allele with a primer set that has primer pairs that are capable of
4 producing an amplicon for all presently known KIR alleles.

1 18. A kit for detecting one or more KIR alleles comprising
2 the primer set of claim 5.

1 19. A kit for detecting one or more KIR alleles comprising
2 the primer set of claim 7.